

Towards Peta-scale Systems: The European PRACE/PROSPECT Initiative and High-End System Trends

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Abstract:

The European Community maintains a "European Roadmap for Research Infrastructures" and has recently established a high-end computing initiative (PRACE) as part of that roadmap. It is seen as an essential component to maintain Europe's technological competitiveness, to keep Europe attractive for researchers and to support innovative industrial developments. Background, structure, planned system architectures and HP's concepts towards Peta-scale computing will be discussed. HP is very active in the industrial sub-organization of PRACE, dubbed PROSPECT. An overview on HP's activities and the relationship to other European entities with a focus on Peta-scale computing will be given.

Dr. Baetke manages HP's Global HPC-Technology Program for academic and research institutions. Dr. Baetke is a director & board member of HP-CAST, the world-wide user group of HP-HPC; he is an advisory board member of the International Supercomputing Conference (ISC); a member of the Indian Supercomputing Conference (HiPC) steering committee; he also serves on the committees of several international High Performance Computing conferences. Dr. Baetke was Assistant Professor (Akademischer Rat) at the Technical University of Munich and joined Convex Computer Corporation in 1986, and thence HP's High Performance Computing Division via acquisition of Convex, in 1995. Frank Baetke holds a master's degree (Dipl.-Ing.) in engineering and a Ph.D. (Dr.-Ing.) in applied physics from the Technical University of Munich. He has published numerous articles in the field of high-performance computing as well as contributions in related areas. He is a member of German Society of Informatics, the Society of Astronomy, ACM, IEEE and the Max Planck Society. He became a Fellow of the International Supercomputing Conference (ISC) in 2009. He is based with Hewlett-Packard in Munich, Germany.